

ABSTRACT

Probe sets for the multiplexed detection of the binding of, or interaction
between, one or more ligands and target antigens are provided. Detection involves the
5 release of identifying tags as a consequence of target recognition. The probe sets include
electrophoretic tag probes or e-tag probes, comprising a detection region and a mobility-
defining region called the mobility modifier, both linked to a target-binding moiety.
Target antigens are contacted with a set of e-tag probes and the contacted antigens
are treated with a selected cleaving agent resulting in a mixture of e-tag reporters and
10 uncleaved and/or partially cleaved e-tag probes. The mixture is exposed to a capture
agent effective to bind to uncleaved or partially cleaved e-tag probes, followed by
electrophoretic separation. In a multiplexed assay, different released e-tag reporters may
be separated and detected providing for target identification.

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